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CURRENT INDUSTRIAL REPORTS



Manufacturers' Shipments, Inventories, and Orders

January 1972



U. S. DEPARTMENT OF COMMERCE • Social and Economic Statistics Administration • BUREAU OF THE CENSUS

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SUMMARY

New orders for manufactured products in January increased \$3.7 billion or 6.2 percent to \$63.1 billion from \$59.4 billion after seasonal adjustment. This increase, the largest in recent years, was primarily attributable to the transportation equipment group. Shipments increased \$2.4 billion or 4.0 percent to \$61.5 billion from \$59.1 billion in December. Unfilled orders increased \$1.6 billion or 2.1 percent to \$79.9 billion at the end of January. Manufacturers' inventories increased \$200 million or 0.2 percent to \$100.8 billion at the end of January. The inventories to shipments ratio decreased from 1.70 to 1.64.

For the 3 months ending in January, the average change in new orders represents a 3.2 percent increase compared with a 0.4 percent decrease for the 3 months ending in October and a 1.0 percent increase for the 3 months ending in July.

NEW ORDERS

New orders for durable goods increased \$3.1 billion or 9.7 percent to \$35.3 billion in January. New orders for transportation equipment increased \$1.9 billion as all components, led by the shipbuilding and railroad equipment group, showed increases in January. The nonelectrical machinery industries and primary metals increased \$600 million and \$400 million respectively. Among the supplementary series, defense products increased \$1.1 billion in January.

SHIPMENTS

Shipments of durable goods increased \$1.9 billion or 5.9 percent to \$33.7 billion in January. Shipments of motor vehicles and parts increased \$700 million to \$5.1 billion and shipments of non-electrical machinery increased \$500 million to \$5.6 billion. Shipments of nondurable goods increased \$500 million to \$27.7 billion.

UNFILLED ORDERS

Unfilled orders for durable goods increased \$1.5 billion or 2.0 percent to \$76.6 billion at the end of January as transportation equipment increased \$1.4 billion to \$25.7 billion.

INVENTORIES

Inventories of durable goods increased \$300 million to \$64.6 billion and inventories of nondurable goods decreased \$100 million to \$36.2 billion at the end of January. At the all manufacturing level, materials and supplies increased \$200 million, work-in-process increased \$300 million and finished goods decreased \$300 million.

SCHEDULED RELEASE DATES

The figures on the durable goods industries in this report supersede those issued earlier in the advance report on durable goods. The advance report is based on a tabulation of early reports and is limited to statistics on shipments, new orders, and unfilled orders for a few broad industry categories. The present report is based on more complete reporting, but the estimates are also considered preliminary. Final figures will appear as historical data in the report to be published for next month. The advance report on durable goods for February is scheduled for release on March 21, 1972 and the full report is scheduled for release on March 30, 1972.

For an explanation of terms used in this report see appendix following table 5.

Inquiries concerning these figures should be addressed to the U.S. Department of Commerce, Social and Economic Statistics Administration, Bureau of the Census, Industry Division, Washington D.C. 20233.

Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment ^r			Seasonally adjusted			Without seasonal adjustment		
	Jan. 1972 ^p	Dec. 1971 ^r	Nov. 1971	Jan. 1972 ^p	Dec. 1971 ^r	Jan. 1971	Jan. 1972 ^p	Dec. 1971 ^r	Nov. 1971	Jan. 1972 ^p	Dec. 1971 ^r	Jan. 1971
Shipments						Total inventories						
All manufacturing industries:												
Total.....	61,454	59,074	59,061	57,217	57,364	51,947	100,752	100,549	100,793	100,862	100,214	100,977
Total, excluding transportation.....	53,732	52,202	51,594	49,718	50,191	45,034	87,025	86,910	87,278	87,080	86,635	86,886
Durable goods industries, total.....	33,725	31,858	32,106	31,216	31,223	27,981	64,591	64,242	64,399	64,411	63,878	65,133
Stone, clay, and glass products.....	2,082	1,849	1,892	1,768	1,647	1,373	2,230	2,263	2,272	2,247	2,213	2,299
Primary metals, total.....	4,922	4,804	4,825	4,760	4,478	4,511	9,456	9,195	9,201	9,544	9,400	9,530
Blast furnaces, steel mills.....	2,196	2,205	2,212	2,194	2,026	2,200	5,056	4,800	4,784	5,142	5,016	5,189
All other primary metals.....	2,726	2,599	2,613	2,566	2,452	2,311	4,400	4,395	4,417	4,402	4,384	4,341
Fabricated metal products, total.....	3,569	3,589	3,683	3,253	3,429	3,185	7,166	7,084	7,191	7,035	6,940	6,933
Metal cans, barrels, and drums.....	378	371	375	329	319	348	783	740	735	726	666	737
Machinery, except electrical, total.....	5,618	5,137	4,981	5,046	5,172	4,400	13,432	13,539	13,698	13,433	13,483	13,968
Engines and turbines.....	378	350	289	298	422	260	1,003	1,018	1,005	999	1,017	951
Farm machinery and equipment.....	517	433	492	459	390	359	1,115	1,083	1,075	1,140	1,091	1,171
Construction, mining, and material banding equipment.....	966	580	813	903	765	801	2,657	2,673	2,736	2,665	2,695	2,615
Metalworking machinery.....	402	393	377	378	413	303	1,174	1,190	1,184	1,173	1,173	1,184
General industrial machinery.....	434	450	443	370	448	364	1,117	1,103	1,145	1,114	1,098	1,151
Electrical machinery, total.....	5,060	4,912	4,607	4,628	4,917	4,004	9,754	9,861	9,870	9,614	9,687	9,882
Electrical transmission and distribution equipment and industrial apparatus.....	910	1,046	931	838	1,022	766	2,175	2,176	2,190	2,169	2,165	2,170
Household appliances, including radio and TV.....	1,058	1,112	1,026	943	1,071	842	1,891	1,883	1,927	1,848	1,816	1,862
Communication equipment.....	1,409	1,290	1,177	1,282	1,347	1,193	3,021	3,036	2,941	2,976	2,997	3,015
Transportation equipment, total.....	7,722	6,872	7,467	7,499	7,173	6,913	13,727	13,639	13,515	13,782	13,579	14,091
Motor vehicles and parts.....	5,082	4,397	4,853	5,116	4,406	4,474	3,853	3,845	3,861	3,969	3,864	4,114
Aircraft, missiles, and parts.....	1,882	1,847	1,958	1,702	2,087	1,848	7,541	7,456	7,425	7,482	7,416	7,997
Instruments and related products.....	1,030	945	962	907	1,004	870	2,485	2,417	2,426	2,436	2,360	2,373
All other durable goods industries.....	3,722	3,750	3,689	3,355	3,403	2,725	6,341	6,244	6,226	6,320	6,216	6,057
Nondurable goods industries, total.....	27,729	27,216	26,955	26,001	26,141	23,966	36,161	36,307	36,394	36,451	36,336	35,844
Food and kindred products, total.....	9,319	9,227	9,122	8,743	9,206	7,975	9,094	9,192	9,169	9,285	9,496	9,115
Meat products.....	2,073	2,098	2,104	2,083	2,022	1,896	773	832	808	797	841	832
Tobacco products.....	550	486	502	492	487	437	2,332	2,321	2,262	2,469	2,411	2,337
Textile mill products.....	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Paper and allied products, total.....	2,420	2,202	2,194	2,257	2,145	2,007	2,754	2,780	2,817	2,720	2,757	2,722
Pulp, paper, etc.....	1,001	888	918	935	885	860	1,027	1,025	1,046	1,011	1,020	1,010
Chemicals and allied products, total.....	4,595	4,406	4,360	4,354	3,978	3,850	6,688	6,758	6,697	6,757	6,763	6,796
Industrial chemicals, except pigments.....	1,586	1,408	1,378	1,462	1,313	1,280	1,881	1,913	1,912	1,913	1,928	1,970
Petroleum and coal products.....	2,417	2,327	2,328	2,376	2,328	2,289	2,416	2,433	2,484	2,417	2,459	2,408
Rubber and plastics products, n.e.c.....	1,657	1,637	1,583	1,531	1,534	1,338	2,200	2,170	2,129	2,207	2,160	2,138
All other nondurable goods industries.....	6,771	6,931	6,866	6,248	6,463	6,070	10,677	10,653	10,836	10,596	10,290	10,328
New orders						Unfilled orders						
All manufacturing industries:												
Total.....	63,099	59,408	59,576	58,769	57,739	53,516	79,864	78,222	77,888	79,579	78,027	81,837
Total, excluding transportation.....	53,950	52,175	52,001	50,191	50,335	46,174	54,132	53,917	53,943	53,996	53,523	55,750
Durable goods industries, total.....	35,256	32,138	32,564	32,693	31,586	29,551	76,584	75,057	74,776	76,376	74,900	78,833
Primary metals, total.....	5,241	4,848	4,809	5,200	4,755	5,632	6,028	5,708	5,664	6,151	5,709	7,799
Blast furnaces, steel mills.....	2,358	2,246	2,246	2,488	2,246	3,225	3,173	3,011	2,970	3,293	4,730	
Fabricated metal products.....	3,564	3,585	3,644	3,297	3,424	3,201	10,456	10,461	10,465	10,425	10,383	11,145
Machinery, except electrical, total.....	5,790	5,154	5,154	5,254	5,194	4,392	14,865	14,696	14,676	14,849	14,639	14,436
Engines and turbines.....	358	361	235	286	441	270	5,021	5,043	5,030	5,064	5,077	4,657
Construction, mining, and material banding equipment.....	822	971	876	925	838	774	2,511	2,655	2,564	2,526	2,504	2,371
Metalworking machinery.....	343	393	370	358	403	293	1,008	1,067	1,067	1,015	1,035	1,170
General industrial machinery.....	574	437	517	420	471	322	1,454	1,314	1,326	1,413	1,362	1,165
Electrical machinery, total.....	4,759	4,757	4,725	4,293	4,824	3,850	14,327	14,629	14,784	14,260	14,596	14,273
Electrical transmission and distribution equipment and industrial apparatus.....	752	1,051	916	721	1,030	733	3,882	4,070	4,065	3,824	3,941	3,840
Household appliances, including radio and TV.....	1,041	1,073	1,112	936	1,042	822	699	716	755	647	654	631
Communication equipment.....	1,435	1,190	1,257	1,177	1,293	1,081	6,019	5,993	6,092	6,091	6,196	5,858
Transportation equipment, total.....	9,149	7,233	7,575	8,578	7,404	7,342	25,732	24,305	23,945	25,583	24,504	26,087
Aircraft, missiles, and parts.....	2,236	2,039	2,142	1,942	2,261	1,932	17,967	17,613	17,422	17,829	17,588	19,159
All other durable goods industries.....	6,753	6,561	6,657	6,071	5,985	5,134	5,176	5,258	5,242	5,108	5,069	5,093
Nondurable goods industries, total.....	27,843	27,270	27,012	26,076	26,153	23,965	3,280	3,165	3,112	3,203	3,127	3,004
Industries with unfilled orders.....	7,607	7,267	7,179	7,058	7,101	6,335	3,280	3,165	3,112	3,203	3,127	3,004
Industries without unfilled orders.....	20,236	20,003	19,833	19,018	19,052	17,630	-	-	-	-	-	-

- Represents zero.

^pPreliminary.^rRevised.

1Adjusted for trading-day and calendar-month variations.

2Beginning with July 1971, the shipments level for this series appears to be high compared with information shown in other textile series. All data for this industry group are, therefore, withheld pending investigation and revision.

Table 2.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, FOR MARKET CATEGORIES AND SUPPLEMENTARY SERIES
(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment		
	Jan. 1972 ^p	Dec. 1971 ^r	Nov. 1971	Jan. 1972 ^p	Dec. 1971 ^r	Jan. 1971	Jan. 1972 ^p	Dec. 1971 ^r	Nov. 1971	Jan. 1972 ^p	Dec. 1971 ^r	Jan. 1971
Shipments							Total inventories					
All manufacturing industries, total...	61,454	59,074	59,061	57,217	57,364	51,947	100,752	100,549	100,793	100,862	100,214	100,977
Durable goods industries, total.....	33,725	31,858	32,106	31,216	31,223	27,981	64,591	64,242	64,399	64,411	63,878	65,133
Nondurable goods industries, total.....	27,729	27,216	26,955	26,001	26,141	23,966	36,161	36,307	36,394	36,451	36,336	35,844
Industry groups arranged by market categories:												
Home goods and apparel.....	5,572	5,779	5,692	5,013	5,087	4,789	10,915	10,892	11,028	10,792	10,517	10,394
Consumer staples.....	11,996	11,926	11,787	11,336	11,794	10,259	14,042	14,094	13,932	14,318	14,400	13,926
Equipment and defense products, except automotive.....	9,164	8,555	8,422	8,218	8,847	7,191	25,154	25,434	25,372	25,324	25,297	25,950
Automotive equipment.....	5,656	4,985	5,438	5,653	4,918	5,036	5,064	5,059	5,044	5,207	5,061	5,296
Construction materials, supplies, and intermediate products.....	5,678	5,298	5,355	4,754	4,901	4,008	8,065	8,013	8,098	8,037	7,911	7,857
Other materials and supplies and intermediate products.....	23,388	22,531	22,367	22,243	21,817	20,364	37,212	37,057	37,319	37,184	37,028	37,554
Supplementary series: ²												
Household durable goods industries.....	2,610	2,689	2,562	2,347	2,520	2,018	4,933	4,914	4,958	4,873	4,788	4,763
Producers' capital goods industries.....	7,171	6,741	6,477	6,466	6,867	5,509	17,216	17,336	17,450	17,140	17,198	17,370
Defense products industries (old series).....	3,679	3,585	3,587	3,362	3,288	3,427	11,506	11,430	11,302	11,398	11,375	12,009
Defense products (new series)*.....	1,794	1,712	1,839	1,620	1,882	1,785	5,822	5,743	5,565	5,764	5,703	6,126
New orders							Unfilled orders					
All manufacturing industries, total...	63,099	59,408	59,576	58,769	57,739	53,516	79,864	78,222	77,888	79,579	78,027	81,837
Durable goods industries, total.....	35,256	32,138	32,564	32,693	31,586	29,551	76,584	75,057	74,776	76,376	74,900	78,833
Nondurable goods industries, total.....	27,843	27,270	27,012	26,076	26,153	23,965	3,280	3,165	3,112	3,203	3,127	3,044
Industry groups arranged by market categories:												
Home goods and apparel.....	5,573	5,689	5,817	5,018	4,971	4,799	2,250	2,236	2,318	2,165	2,159	1,936
Consumer staples.....	12,008	11,937	11,797	11,339	11,801	10,266						
Equipment and defense products, except automotive.....	10,237	8,685	8,689	9,014	8,880	7,869	44,338	43,201	42,947	44,273	43,383	43,961
Automotive equipment.....	5,723	5,104	5,488	5,747	5,080	5,082						
Construction materials, supplies, and intermediate products.....	5,673	5,283	5,337	4,811	4,820	4,057	10,093	10,098	10,114	9,961	9,905	10,589
Other materials and supplies and intermediate products.....	23,885	22,710	22,448	22,840	22,187	21,443	23,183	22,687	22,509	23,180	22,580	25,351
Supplementary series: ²												
Household durable goods industries.....	2,629	2,589	2,672	2,372	2,408	2,039	1,825	1,806	1,907	1,751	1,728	1,584
Producers' capital goods industries.....	8,055	6,835	6,565	7,256	6,803	5,771	24,036	23,156	23,058	23,837	23,046	22,718
Defense products industries (old series).....	3,931	3,687	3,947	3,476	3,939	3,397	24,576	24,325	24,223	24,554	24,439	26,139
Defense products (new series)*.....	3,132	2,010	2,110	2,651	2,066	1,962	20,972	19,634	19,336	20,808	19,777	19,686

*During 1968 manufacturers in ordnance, communications, aircraft and aircraft parts, and shipbuilding industries began to provide aggregate figures on shipments, orders, and total inventories of work performed for the Department of Defense. The results of these reports are included in these new defense series. Since there are no historic data available to develop separate seasonal factors for these reporters, the data have been seasonally adjusted using the factors of these industries. ^pPreliminary. ^rRevised.

¹Shipments and new orders adjusted for trading-day and calendar-month variations; unfilled orders and inventories as of end of month.

²The supplementary series are regroupings of the separate industry categories as follows:

Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; ophthalmic goods, watches, and clocks; and miscellaneous personal goods.

Producers' capital goods (formerly machinery and equipment) industries - Machinery, except electrical (excluding farm machinery and equipment and machine shops), electrical machinery (excluding household appliances, communication equipment and electronic components), shipbuilding and repairing, and railroad and street car equipment.

Defense products industries (old series) - Based on reports for companies classified in the communication equipment, complete aircraft, aircraft parts, and ordnance industries. (Thus, this series includes significant amounts of nondefense work in these industries and omits defense work performed in the shipbuilding industry.)

Defense products (new series) - Based on separate reports on defense work filed by large defense contractors in the following industries: ordnance, communications, complete aircraft, aircraft parts, and shipbuilding. Thus, it differs from the old series in that it includes defense activity in shipbuilding and excludes nondefense work in ordnance, communications, complete aircraft, and aircraft parts. The data are comparable to those published annually in the MA-175, Shipments of Defense-Oriented Industries, for the specified industries.

Table 3.--MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS MONTH-TO-MONTH AND LONG TERM PERCENT CHANGES

(Based on seasonally adjusted data)

Item and industry group	Month-to-month			Average monthly rates of change					Average, 1966-1971	
	Dec. 1971- Jan. 1972	Nov.- Dec. 1971	Oct.- Nov. 1971	3 months		Apr. 1971- July 1971	Jan. 1971 Jan. 1972	12 months	Average rise	Average decline
				Oct. 1971- Jan. 1972	July 1971- Oct. 1971					
Shipments:										
All manufacturing industries.....	-4.0	0.0	+2.8		+2.3	-0.6	+0.4	-0.8	+1.3	-1.1
Durable goods industries, total.....	-5.9	-0.6	+3.0		+2.7	-1.0	+0.9	+1.0	+2.1	-1.7
Nondurable goods industries, total.....	-1.9	+1.0	+2.6		-1.6	0.0	-0.1	-0.7	+1.0	-0.6
Total inventories:										
All manufacturing industries.....	-0.2	-0.2	+0.1		0.0	+0.2	-0.1	0.0	+0.5	-0.2
New orders:										
All manufacturing industries.....	+6.2	-0.3	+3.6		+3.2	-0.4	+1.0	+0.8	+1.9	-1.3
Durable goods industries, total.....	+9.7	-1.3	+4.6		+4.3	-0.9	+1.9	+1.0	+3.0	-2.3
Nondurable goods industries, total.....	+2.1	+1.0	+2.5		+1.9	+0.1	-0.1	-0.7	+0.9	-0.5
Unfilled orders:										
Durable goods industries, total.....	-2.0	+0.4	+0.6		+1.0	-0.1	-1.5	-0.3	+0.8	-0.8

Table 4.--VALUE OF MANUFACTURERS' INVENTORIES, BY STAGE OF FABRICATION, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment			Seasonally adjusted			Without seasonal adjustment		
	Jan. 1972 ^P	Dec. 1971 ^R	Nov. 1971	Jan. 1972 ^P	Dec. 1971 ^R	Jan. 1971	Jan. 1972 ^P	Dec. 1971 ^R	Nov. 1971	Jan. 1971 ^P	Dec. 1971 ^R	Jan. 1971
Total												
Materials and supplies												
All manufacturing industries, total..	100,752	100,549	100,793	100,862	100,214	100,977	32,787	32,591	32,452	32,912	33,004	32,252
Durable goods industries, total.....	64,591	61,242	64,399	64,411	63,878	65,133	19,237	19,133	19,070	19,159	19,287	19,035
Stone, clay, and glass products.....	2,230	2,263	2,272	2,247	2,213	2,299	755	735	748	755	744	740
Primary metals.....	9,456	9,195	9,201	9,544	9,400	9,530	3,659	3,575	3,453	3,679	3,741	3,407
Machinery (electrical and nonelectrical).....	23,186	23,400	23,568	23,047	23,170	23,850	6,522	6,330	6,344	6,452	6,366	6,352
Transportation equipment.....	13,727	13,639	13,515	13,782	13,579	14,091	2,608	2,858	2,864	2,639	2,846	1,381
All other durable goods industries.....	15,992	15,745	15,843	15,791	15,516	15,363	5,693	5,635	5,661	5,634	5,590	5,355
Nondurable goods industries, total.....	36,161	36,307	36,394	36,451	36,336	35,844	13,550	13,458	13,382	13,753	13,717	13,217
Chemicals and allied products.....	6,688	6,758	6,697	6,757	6,763	6,796	2,321	2,309	2,286	2,336	2,333	2,355
Petroleum and coal products.....	2,416	2,433	2,484	2,417	2,459	2,408	595	587	567	582	576	585
Rubber and plastics products, n.e.c.....	2,200	2,170	2,129	2,207	2,160	2,138	660	659	666	653	654	713
All other nondurable goods industries....	24,857	24,946	25,084	25,070	24,954	24,502	9,974	9,903	9,863	10,182	10,154	9,564
Work in process												
Finished goods												
All manufacturing industries, total..	33,947	33,658	33,841	33,805	33,299	34,231	34,018	34,300	34,500	34,145	33,911	34,494
Durable goods industries, total.....	28,827	28,484	28,626	28,700	28,205	29,131	16,527	16,625	16,703	16,552	16,386	16,967
Stone, clay, and glass products.....	277	287	289	274	272	315	1,198	1,241	1,235	1,218	1,197	1,244
Primary metals.....	3,090	2,986	3,084	3,113	3,021	3,339	2,707	2,634	2,752	2,664	2,638	2,784
Machinery (electrical and nonelectrical).....	10,324	10,503	10,631	10,321	10,345	10,903	6,340	6,567	6,593	6,274	6,459	6,595
Transportation equipment.....	9,768	9,435	9,260	9,747	9,405	9,406	1,351	1,346	1,391	1,396	1,328	1,504
All other durable goods industries.....	5,368	5,273	5,362	5,245	5,162	5,168	4,931	4,837	4,820	4,912	4,764	4,840
Nondurable goods industries, total.....	5,120	5,174	5,215	5,105	5,094	5,100	17,491	17,675	17,797	17,593	17,525	17,527
Chemicals and allied products.....	694	887	888	900	904	863	3,473	3,562	3,523	3,521	3,526	3,578
Petroleum and coal products.....	451	456	477	443	451	437	1,370	1,390	1,440	1,392	1,432	1,386
Rubber and plastics products, n.e.c.....	349	341	342	349	344	324	1,191	1,170	1,121	1,205	1,162	1,101
All other nondurable goods industries....	3,426	3,490	3,508	3,413	3,395	3,476	11,457	11,553	11,713	11,475	11,405	11,462

^PPreliminary.^RRevised.

Table 5.--RATIO OF MANUFACTURERS' INVENTORIES TO SHIPMENTS AND UNFILLED ORDERS TO SHIPMENTS, BY INDUSTRY GROUP
(Based on seasonally adjusted data)

Industry group	Inventories - shipments ratio				Unfilled orders - shipments ratio ¹ (months' backlog)			
	Jan. 1972 ^b	Dec. 1971 ^r	Nov. 1971	Jan. 1971	Jan. 1972 ^p	Dec. 1971 ^r	Nov. 1971	Jan. 1971
All manufacturing industries, total.....	1.64	1.70	1.71	1.81	2.14	2.26	2.20	2.46
Durable goods industries, total.....	1.92	2.02	2.01	2.16	2.57	2.73	2.64	2.98
Stone, clay, and glass products.....	1.07	1.22	1.20	1.41	(NA)	(NA)	(NA)	(NA)
Primary metals.....	1.92	1.91	1.91	2.04	1.22	1.19	1.17	1.65
Fabricated metals.....	2.01	1.97	1.95	2.01	3.28	3.25	3.16	3.60
Machinery, except electrical.....	2.39	2.64	2.75	2.85	2.65	2.86	2.95	2.94
Electrical machinery.....	1.93	2.01	2.14	2.29	2.83	2.98	3.21	3.27
Transportation equipment.....	1.78	1.98	1.81	1.96	5.95	6.22	5.70	6.39
Instruments and related products.....	2.41	2.56	2.52	2.46	(NA)	(NA)	(NA)	(NA)
Nondurable goods industries, total.....	1.30	1.33	1.35	1.39	0.44	0.44	0.44	0.45
Food and kindred products.....	0.98	1.00	1.01	1.05	(X)	(X)	(X)	(X)
Tobacco products.....	4.24	4.78	4.51	4.51	(X)	(X)	(X)	(X)
Textile mill products.....	(2)	(2)	(2)	(2)	(NA)	(NA)	(NA)	(NA)
Paper and allied products.....	1.14	1.26	1.28	1.28	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products.....	1.46	1.53	1.54	1.65	(X)	(X)	(X)	(X)
Petroleum and coal products.....	1.00	1.05	1.07	1.04	(X)	(X)	(X)	(X)
Rubber and plastics products, n.e.c.....	1.33	1.33	1.34	1.47	(X)	(X)	(X)	(X)

(NA) Not available. P Preliminary. R Revised. (X) Not applicable.

¹Excludes the following industries with no unfilled order: Wooden containers; glass containers; metal cans, barrels and drums; motor vehicle assembly operations; foods and related products; tobacco; apparel and related products; chemicals; petroleum and coal products; and rubber and plastics products, n.e.c.

²Beginning with July 1971, the shipments level for this series appears to be high compared with information shown in other textile series. All data for this industry group are, therefore, withheld pending investigation and revision.

Appendix

The following is a description of the survey and definitions used. These are provided to clarify the meaning of the items involved and do not represent any revisions from those definitions previously employed.

DESCRIPTION OF THE SURVEY

The Manufacturers' Shipments, Inventories, and Orders survey provides monthly figures that are comparable to the annual totals published each year in the annual survey of manufactures (ASM). The ASM is based on a sample of approximately 60,000 manufacturing establishments drawn from the 5-year census universe of about 310,000 establishments. In the ASM, each manufacturing establishment provides data on employment, payrolls, shipments, cost of materials, capital expenditures, and inventories as well as other selected items. The establishments do not provide information on unfilled orders or new orders. Since the ASM is establishment based, it provides data for each of the 425 manufacturing industries in the Standard Industrial Classification System (SIC) and area data for industry groups.

The monthly survey M3-1 does not provide information at the complete SIC industry detail because of the smaller size of the reporting panel and the fact that most companies cannot provide shipments, inventories, and orders data monthly for individual establishments.

The monthly reporting panel consists of approximately 5,000 reporting units and includes virtually all companies with 1,000 or more employees and a sample of the smaller ones. The reporting unit typically comprises the entire operations of a company although many of the larger diversified companies file separate divisional type reports for their operations in different industries.

Most of the reporting units include mixed industry activity even within the broad industry categories of the monthly survey. The survey methodology assumes that the month-to-month changes of the reporting units classified in each industry category represent effectively the month-to-month movements of the establishments in the SIC industries which make up the category. Thus, the monthly reports are used to update the ASM estimates by using a link relative of matched companies in each industry.

EXPLANATION OF TERMS

Value of Shipments--Shipments in the monthly survey are equivalent to value of shipments as reported in the ASM which are received or receivable net selling values, f.o.b. plant, after discounts and allowances and excluding freight charges and excise taxes. Included in shipments are the value of all products sold, transferred to other plants of the same company, or shipped on consignment.

Shipments also include receipts of establishments in the industry for contract work performed for others, resales, receipts for miscellaneous activities such as the sale of scrap and refuse; value of installation and repair work performed by employees of the plant; and value of research and development performed at the plant. In the aircraft industry and shipbuilding, the value of work done in a given year varies considerably from the value of shipments because of the long lead time between the input of the materials and labor and the shipments of the completed aircraft or ship. In the annual survey, therefore, the value of work done during the year is requested rather than the value of shipments.

The value of shipments figures developed from the ASM contain duplication at the all manufacturing and industry group levels since the products of some industries are used as materials by other industries within the industry group. With the exception of motor vehicles, it is not significant at the 4-digit SIC group level. Since the M3-1 industry categories typically are groupings of industries, this duplication is significant for the all manufacturing, durable goods and nondurable goods categories and the various market groups. The significance of the duplication within the specific M3-1 industry groups varies depending on the 4-digit industry composition of these groups. It is most pronounced in a few highly integrated industry areas such as primary metals and motor vehicles and parts.

Since most monthly reports are for the entire company or major divisions rather than establishments, the companies are requested to report net sales, i.e., total company billings after discounts and allowances. Companies which file divisional reports are requested to treat transfers from one division of the company to another as if they were net sales to outside customers. Although this

definition of shipments in the monthly reports differs from that used in the annual establishment reports, it is assumed that the month-to-month changes in company sales in the industry are representative of the month-to-month shipments of the establishments in the industry.

Inventories-- End-of-month inventories in the monthly survey are identical in definition to the end-of-year inventories in the ASM. In the ASM, respondents are asked to report inventories of individual establishments at approximate current cost if feasible; otherwise, "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the aggregate inventories for establishments in an industry is not precise. The figures on the change in inventories from one period to the next are of greater significance than the actual aggregates.

Inventories are reported by stage of fabrication: (a) finished goods; (b) work in process; and (c) materials, supplies, fuel, and other inventories. In using inventories by stage of fabrication at the all manufacturing and 2-digit industry levels as well as for the durable and nondurable goods sectors, it should be noted that a finished product of one industry may be a raw material for another industry at the next stage of fabrication. Insofar as the durable and nondurable goods sectors and also the 2-digit industry groups contain industries with successive stages of processing, the same type of commodity may be included under different inventory categories in the aggregate statistics.

New Orders Received and Unfilled Orders--

Orders as reported in the monthly survey are net of cancellations during the month. They include orders received during the period and also filled during the period as well as those orders received for future delivery. They also include the net sales value of contract change documents which increase or decrease the sales value of the unfilled orders to which they relate. Orders include only those supported by binding legal documents such as signed contracts, or letter contracts. In case of letter contracts the full amount of the sales value is included if the parties are in substantial agreement on the amount; otherwise, only the funds specifically authorized to be expended are included. The respondent is instructed to deduct the sales value of partial or complete cancellation of existing orders.

Unfilled orders include orders as defined above that have not yet passed through the sales account. Generally, unfilled orders at the end of the reporting period are equal to unfilled orders at the beginning of the period plus net new orders received less net sales.

While both new orders and unfilled orders are used in reviewing individual company reports for consistency, only unfilled orders are estimated directly in the tabulated totals. New orders are derived from the shipments plus net change in unfilled orders for each industry category. This procedure is followed for seasonally adjusted data as well as for the unadjusted data. Shipments and unfilled orders are seasonally adjusted independently. Seasonally adjusted new orders are derived from seasonally adjusted shipments and seasonally adjusted unfilled orders.

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